

Steel composition for a rolling bearing

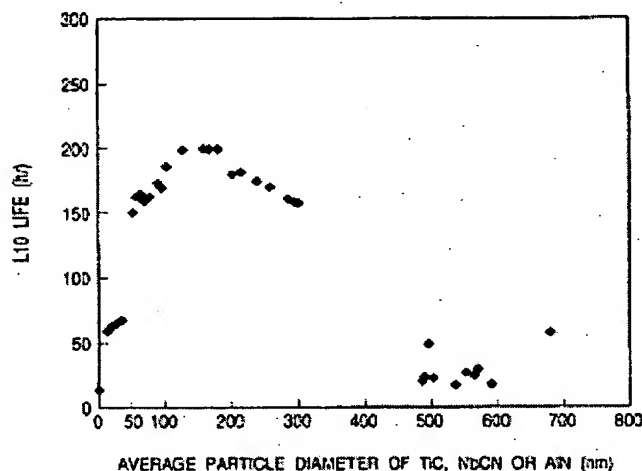
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Abstract of GB2328479

A rolling bearing having components comprising a fixed race, a rotating race and rolling elements has at least one of the components made from a steel which contains from 0.05 to 0.40 % by weight of at least one of Ti, Nb, Al, along with from 0.65 to 1.20 % by weight of C, 0.05 to 0.70 % by weight of Si, 0.2 to 1.5 % Mn, 0.15 to 2.0 % Cr, not more than 0.01 % N and unavoidable contaminating elements. Particles of at least one of Ti carbide, Ti carbonitride, Nb carbide, Nb carbonitride and Al nitride are dispersed and deposited at least in the vicinity of the surface of the at least one of the bearing components. At least one of the carbides, carbonitrides or nitride above may have an average diameter of 50 to 300 nm. The Titanium carbide or carbonitride particles may have an average particle diameter of 20 nm or less. Austenite may be present in at least the vicinity of the surface. Enlargement of the crystal grains is prevented when hardening.



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